DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: BLOOD POND 10.00 Lake Area (ha): Maximum depth (m): 6.4 Town: LANCASTER County: Coos Mean depth (m): 2.5 River Basin: Connecticut Volume (m³): 252000 Relative depth: Latitude: 44°25'40" N Longitude: 71°35'35" W 1.8 Shore configuration: 1.16 Elevation (ft): 1059 Shore length (m): 1300 Areal water load (m/yr): 40.25 Shore length (m): 1300 Flushing rate (yr⁻¹): 16.00 Watershed area (ha): 880.6 P retention coeff.: 0.39 % watershed ponded: 5.5 Lake type: natural

BIOLOGICAL:	6 February 1991	30 August 1990
DOM. PHYTOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	OSCILLATORIA 65%
#2		DINOBRYON 15%
#3		CHRYSOSPHAERELLA 10%
PHYTOPLANKTON ABUNDANCE (cells/mL)		810.0
CHLOROPHYLL-A (µg/L)		8.53
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 32%	KELLICOTTIA 89%
#2	FILINIA 21%	NAUPLIUS LARVA 5%
#3	UNSTALKED PERITRICH 21%	
ROTIFERS/LITER	107	550
MICROCRUSTACEA/LITER	15	60
ZOOPLANKTON ABUNDANCE (#/L)	155	610
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		2.5
BOTTOM DISSOLVED OXYGEN (mg/L)	1.6	1.4
BACTERIA (fecal col., #/100 ml) #1		< 10
#2		< 10
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 2.2 Hypolimnion volume (m^3) : 26000 Anoxic volume (m^3) : None

HEMICAL: Lake: BLOOD POND Town: LANCASTER					
·	6 February 1991		30 August 199		90
DEPTH (m)	2.0	4.0	1.0	3.0	5.5
pH (units)	6.4	6.3	6.8	6.4	6.5
A.N.C. (Alkalinity)	16.3	17.7	14.3	10.7	33.6
NITRATE NITROGEN	0.10	0.13	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.54	0.87	0.56	0.44	1.59
TOTAL PHOSPHORUS	0.005	0.020	0.018	0.019	0.056
CONDUCTIVITY (µmhos/cm)	92.4	100.6	80.7	84.7	172.3
APPARENT COLOR (cpu)	82	92	84	51	114
MAGNESIUM			0.89		
CALCIUM			6.0		
SODIUM			6.3		-
POTASSIUM			0.70		,
CHLORIDE	12	14	9		27
SULFATE	6	5	4		1
TN : TP	128	50	31		28
CALCITE SATURATION INDEX			2.5		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1990

-	D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
	1	3	3	2	9	Meso.

COMMENTS:

- 1. No public access; boat was launched at the beach of a private campground at the northern inlet end of the pond.
- 2. Water was a dark brown color.
- 3. Dominant genera of wholewater phytoplankton were <u>Chroomonas</u> (20%) and tiny green flagellates (15%).



FIELD DATA SHEET

LAKE: BLOOD POND TOWN: LANCASTER WEATHER: CLEAR & HOT

DATE: 08/30/90

DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	23.5	8.0	93 %
1.0	22.2	7.3	83 %
2.0	17.6	1.0	10 %
3.0	12.5	3.8	35 %
4.0	9.0	1.1	9 %
5.0	8.0	1.2	10 %
6.0	7.7	1.4	11 %

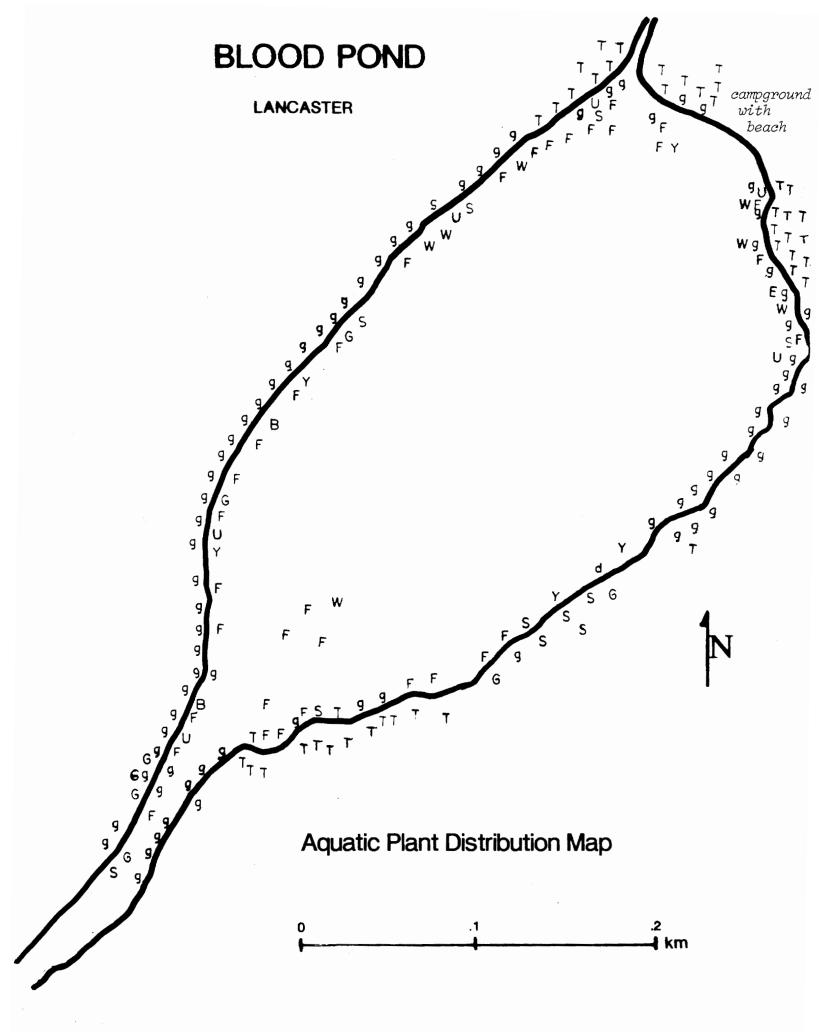
SECCHI DISK (m): 2.5 COMMENTS: The low dissolved oxygen BOTTOM DEPTH (m): 6.4

value at 1 meter was real --

it was re-checked twice.

TIME: 1200

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAK	E: BLOOD POND	TOWN: LANCASTER	DATE: 08/30/90	
Key	PLANT NAME		ABUNDANCE	
ive y	GENERIC	COMMON	ABUNDANCE	
Т	Typha	Cattail	Common	
g	Myrica gale	Sweet gale	Abundant	
U	Utricularia	Bladderwort	Sparse	
F	Nymphoides cordatum	Floating heart	Scattered	
W	Potamogeton	Pondweed	Sparse	
S	Sparganium	Bur reed	Sparse	
E	Eriocaulon septangulare	Pipewort	Sparse	
Y	Nuphar	Yellow water lily	Sparse	
d	Dulichium arundinaceum	Three-way sedge	Sparse	
G	Gramineae	Grass family	Scattered	
В	Brasenia schreberi	Water shield	Sparse	

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. Cattails and sweet gale bordered the entire pond. Their presence was not included in the overall abundance rating since they were not in the water. Much of the land around the pond was wetland.